

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2000-148409

(43)Date of publication of application : 30.05.2000

(51)Int.Cl.

G06F 3/06

G06F 12/16

G11B 19/02

(21)Application number : 10-322073

(71)Applicant : HITACHI LTD

(22)Date of filing : 12.11.1998

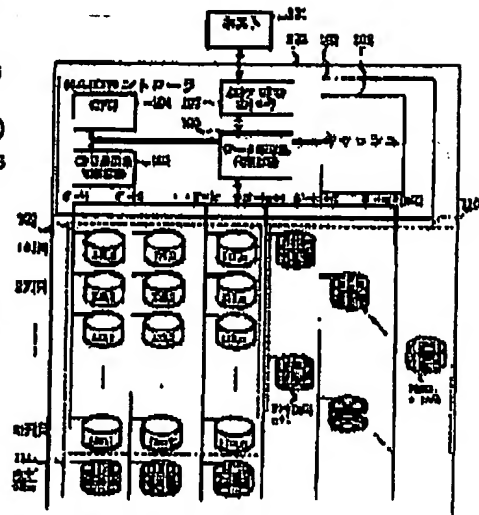
(72)Inventor : KANO AZUMA
SATO MASAHIKO

(54) REDUNDANT STORAGE DEVICE

(57)Abstract:

PROBLEM TO BE SOLVED: To improve the fault tolerance of the redundant storage device in case of multiple faults.

SOLUTION: In addition to column-directional redundant disk drives 110 corresponding to respective columns constituting a parity group, a disk array 102 including disk drives 109 ((D1, 1) to (Dm, n)) for data which are arrayed in a matrix of (n) rows by (m) columns is provided with row-directional redundant disk drives 111 ((Pm+1, 1) to (Pm+1, n)) stored with redundant data generated from (m) pieces of unit data of (m) row-directional disk drives 109 for data and if multiple faults occur to disk drives 109 for data in a column, data recovery is made in the row direction by using the data of the row-directional redundant disk drives 111 to improve the fault tolerance to the multiple faults. Further, the column-directional redundant disk drives 110 are decentralized and connected to n/2 multiple ports to evade access convergence on the redundant disk drives.



BEST AVAILABLE COPY

II: 第一号ディスクドライブ III: 第二号ディスクドライブ